WHAT IS CLAIMED IS:

1. A fuel cell system comprising:

a fuel cell;

a fuel gas passage which is connected to the fuel cell and through which a fuel gas containing an odorant and hydrogen gas supplied to the fuel cell flows;

an oxidative gas passage which is connected to the fuel cell and through which an oxidative gas supplied to the fuel cell flows;

a fuel off gas passage which is connected to the fuel cell and through which a fuel off gas discharged from the fuel cell flows;

an oxidative off gas passage which is connected to the fuel cell and through which an oxidative off gas discharged from the fuel cell flows; and

an odorant removal portion which removes the odorant from the fuel gas after introduction of the fuel gas into the fuel cell.

2. The fuel cell system according to claim 1, wherein

the odorant is a specific odorant that is unlikely to deteriorate output characteristics of the fuel cell.

3. The fuel cell system according to claim 2, wherein

the odorant is butyric acid.

4. The fuel cell system according to claim 2, wherein

the odorant removal portion is provided in the fuel off gas passage.

5. The fuel cell system according to claim 4, further comprising:

a circulation passage which couples a first connecting point of the fuel off gas passage to a second connecting point of the fuel gas passage,

wherein

the odorant removal portion is provided in the fuel off gas passage between the first connecting point and the fuel cell.

6. The fuel cell system according to claim 4, further comprising:

a circulation passage which couples a first connecting point of the fuel off gas passage to a second connecting point of the fuel gas passage,

wherein

the odorant removal portion is provided downstream of the first connecting point of the fuel off gas passage.

7. The fuel cell system according to claim 6, further comprising:

an air supply portion which is connected to a third connecting point of the fuel off gas located passage downstream of the first connecting point of the fuel off gas passage and which supplies the fuel off gas passage with air,

wherein

the odorant removal portion is provided downstream of the third connecting point of the fuel off gas passage.

8. The fuel cell system according to claim 2, further comprising:

a circulation passage which connects the fuel off gas passage to the fuel gas passage,

wherein

the odorant removal portion is provided in the circulation passage.

9. The fuel cell system according to claim 2, further comprising:

a circulation system which includes a circulation passage connecting the fuel off gas passage to the fuel gas passage and which causes the fuel gas to circulate,

wherein

the odorant removal portion is provided in the circulation system.

10. The fuel cell system according to claim 2, further comprising:

a confluent off gas passage into which the fuel off gas passage and the oxidative off gas passage converge,

wherein

the odorant removal portion is provided in the confluent off gas passage.

11. The fuel cell system according to claim 2, wherein

the fuel off gas passage is connected to the oxidative gas passage,

the odorant removal portion is provided downstream of a connecting point connecting the fuel off gas passage to the oxidative gas passage.

12. The fuel cell system according to claim 11, wherein

an internal fuel gas passage through which a mixed gas of the fuel off gas and the oxidative gas flows is formed inside the fuel cell, and

the odorant removal portion is provided in the internal fuel gas passage.

13. The fuel cell system according to claim 2, wherein

the fuel cell is provided with an electric cell including an anode, a cathode, and an electrolyte membrane sandwiched between the anode and the cathode, and

the odorant removal portion is interposed between the cathode and the electrolyte membrane.

14. The fuel cell system according to claim 1, wherein

an internal fuel gas passage through which the supplied fuel gas flows is formed inside the fuel cell, and

the odorant removal portion is provided in the internal fuel gas passage.

15. The fuel cell system according to claim 14, wherein

the fuel cell is provided with a stack including a plurality of electric cells,

the internal fuel gas passage includes a distribution passage which penetrates the stack and which is designed to distribute the fuel gas to the electric cells respectively, and

the odorant removal portion is provided in the distribution passage.

16. The fuel cell system according to claim 14, wherein

the fuel cell is provided with an electric cell,

the internal fuel gas passage includes a fuel gas small passage which is formed on one face of the electric cell and which is designed to supply the electric cell with the fuel gas, and

the odorant removal portion is provided on said one face of the electric cell where the fuel gas small passage is formed.

17. The fuel cell system according to claim 14, wherein

the fuel cell includes an electric cell which is provided with an anode, a cathode, and an electrolyte membrane sandwiched between the anode and the cathode, and includes a separator which is disposed adjacent to the anode and which forms between itself and the anode a fuel gas small passage through which the fuel gas flows, and

the odorant removal portion is interposed between the anode and the separator.

18. The fuel cell system according to claim 1, further comprising:

an oxygen gas supply portion which supplies the odorant removal portion with oxygen gas,

wherein

the odorant removal portion includes a catalyst which promotes oxidation of the odorant.

19. A fuel cell system comprising:

a fuel cell which is provided with an opening portion and which generates electricity by means of an oxidative gas and hydrogen gas that has been introduced via the opening portion;

a fuel gas passage which is connected to the opening portion of the fuel cell and through which a fuel gas containing hydrogen gas and an odorant is supplied to the fuel cell; and

an odorant removal portion provided downstream of the opening portion.

20. The fuel cell system according to claim 19, further comprising:

a passage which is connected to the fuel cell and through which a fuel off gas discharged from the fuel cell flows,

wherein

the odorant removal portion is provided in the passage.

21. The fuel cell system according to claim 19, wherein

an internal fuel gas passage through which the fuel gas supplied from the opening portion flows is formed inside the fuel cell, and

the odorant removal portion is provided in the internal fuel gas passage.